Notes
Dr. L. S. Nelson, Energy Advisor
Utah Energy Forum September 13, 2006 Meeting

Dr. Laura Nelson:

Welcome and introductions.

Lieutenant Governor Herbert

- We do have challenges on the energy front
- Now more than ever it is important that we utilize our energy resources in the most efficient/responsible manner possible
- Interesting Analogy:
    - USA energy use = the equivalent of 300 servants
    - Europe energy use = the equivalent of 150 servants
    - India energy use = the equivalent of 15 servants
- Many issues in the world are driven by energy strife
- Critical time as we look at our energy issues nationally and globally
    - China 1.3 billion people
    - India 1.2 billion people
    - Both are emerging economies and want to have same standard of living as the USA does
- Discussion & dialogue is important for identifying where we can come together even though we have a number of different perspectives.
- My [Lieutenant Governor] view is that we are "stewards" of the land
    - We have to balance our immediate short term needs with long term goals
    - We ought to be appropriate stewards of the land
- Technology has allowed us to extract resources in more environmentally friendly way (lower impact)
- We can be a leader in efficiency & environmental responsibility while addressing the supply side of the energy equation
- Technology can help us find solutions to doing things better but there are no easy answers, but we can do it if we work together
- There are some real uncertainties, but there will be an evolution when we move away from our utilization of oil
- Known oil reserves do keep expanding (we are at 40 years now) but no one knows for sure what we will discover
- 1975 coal reserves lower than today even though we increased use of coal
- 1973 Natural Gas 43 years; today over 60 years although our use increased 90%
- New tech = new opportunities, which means a changing energy landscape
- Also other forms of energy, hydro, solar, etc.
- There will always be a need for energy and we will find ways to meet that need, but prices may be higher

Representative Barrus

- Comment on Questar; at the heart of their business strategy is the needs of our State.
- Energy Work Group: volunteers coming together on their own time, trying to guide energy policy from a legislative viewpoint

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- Looking at conservation/efficiency, consumption, transmission & transportation, renewables, etc.
- Thanks to subgroup chairs:
    - Phil Colton: Gov. Operations
    - Ted Rampton: Energy Department
    - Dave Litvin: Energy Efficiency, consumption, consumers
    - Ron Daniels: Transportation and Transmission
- Working together as a team
- HB 46: framework of what we want to achieve through energy policy- had bi-partisan support
    - gave direction & anticipate for future legislation to support this
- HB 80 on energy efficiency for State Buildings
    - now look to take this philosophy and apply it to State Fleets (look at energy efficiency and alternative fuels)
- State agencies implementing aspects of energy policy on "voluntary basis"
- But for this year we will look at pieces of legislation that can continue to be catalyst for moving energy policy forward in the state
- 1. Resolution to adopt Governor's energy efficiency goal
  2. State Fleets
  3. Central Siting Authority
  4. Continue to streamline permitting process
- Have opened bill file and will look at amendments (e.g. hydro)
- Recognizing that they are "stewards" and want to make sure we are represented
- Questions:
    - David Brems: CA Legislation, is legislative group working on this?
        - Yes on a higher level
    - Is 20% increase in EE same 20% by 2015 for State Buildings?
        - Yes, 20 % energy efficiency by 2015 (based on fiscal year 2005) measured source BTU for all State Buildings divided by square footage & will measure every year with goal to increase energy efficiency by 20% by 2015
        - There is a cost to doing this so maybe need to look at funding for this; especially when look at construction and modifications. 1-2% cost increase for new buildings for energy efficiency.
    - Question: Wolverine gas & oil (at covenant) field, keeping production low because limited capacity. Has the legislature discussed support for increased refining capacity in State?
        - Looking at short term vs. long term and working with producers & refiners. New environmental standards have stretched our smaller refinery's budgets and can't afford new technology.
    - Utah Policy Partnership (Steve Starks): I can provide information about State Fleets and collected information. I can identify things they have done; e.g. percentage of natural gas vehicles that employees didn't know where to fill up. Added maps, employees have to fill up with natural gas.

Ron Allen, Public Service Commission:

- Stipulations: there have been some questions about the Public Service Commission's (PSC) role in stipulations.

- They are a quasi-judicial body so they take things very seriously
- Have a number of advocates
    - CCS: mandated to protect customers
    - DPC: obligated to collect information/data to inform PSC (evidence)
    - Industrial customers, etc.
- When stipulation do issues get fully vetted? Note: Combative hearings not necessarily better than fully vetted stipulations
- PSC very conscientious when looking at these issues
    - Incredibly well informed & dedicated staff (motivated to do the right thing for Utah)
    - To assure prices are as reasonable & fair as possible
    - Price stipulations are very thoroughly investigated and vetted
- PSC does have some siting authority
- Utah is being looked at as example for rest of country because we seem to be getting things done and meeting needs of consumers

Al Walker, Questar:

- Supply
    - Have equity supply = $3.50 cost
    - Sit in prolific supply basin
    - Tied to national grid = national prices (or market actions) impact NG prices here; i.e., local prices are reflective of national trends
- Transmission Storage
    - Expansive and expanding interstate pipeline system
    - Clay basin storage for baseline and peaking
    - Aquifer storage for peaking
- Distribution Infrastructure
    - Continually upgrading and expanding;
    - Utah is rapidly expanding, population increase, need more pipeline
    - As system ages have to upgrade; necessary but difficult
- Gas Cost
    - Record high prices last winter but also have high storage, a lot of volatility in prices
    - Unstable national arena and get LNG from unstable areas
    - Expanding energy demand is occurring internationally
    - Prudhoe bay corrosion problems
    - Deep Gulf discovery will help
    - Market is very sensitive to both good and bad news
    - Look at instability
- Questions:
    - Price now is about 7.50
    - What about impact of electricity production with natural gas?
        - Supply is about even with where things are, but keeping up is challenging; and importing LNG is also problematic; we will need new development, Alaska, Deep Gulf, etc.
    - How far forward do projections go?
        - These are the forecasts out -50 years; showing major gaps in supply by 2020, but not all resources have been identified.

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- Utah important player
- NOTE: highlights our challenging times, look at CA policy, kind of finances technology but we aren't there yet, PSC has lots of criticism when approving last NG plant, so all we do has impact

John Baza, DGM:

- Our supply position is changing and this has a lot to do with technology, etc. (i.e. new tech is constantly expanding new energy position
- Overview of who DOGM & where they are located in DNR
- 4 divisions (subprograms in DOGM)
  - Oil and gas conservations (focus of today)
  - Coal mining and reclamation
  - Minerals mining and reclamation
  - Abandoned mine reclamation
  - Also have board of DGM, (serve 4 years, with two term potential)
- Oil and Gas
  - Encourage exploration, development, & conservation
  - Do basic features of permitting, inspecting, education, etc.
  - Track priority trends, has divisions of Oil and Gas development in the state
- Crude oil price
  - 1-1-02 was $19.78/per barrel
  - 9-8-06 was $66.26/per barrel
- Natural Gas
  - 1-1-02 was $2.26
  - 1-1-06 was $7.72
  - 9-8-06 was $4.80/mcf
- Prices have spurned drilling activity in the state
  - Hitting records for applications
  - Oil production in state decreasing (highest in mid-80s) but slight uptake in the last couple of years
- Where in Oil & Gas activity?
  - 2005, 1629 drilling approvals
  - YTD for 2006 1423 drilling approvals
    - 67% of that in Uintah Basin (gas)
    - 19% of that in Duchesne County (oil)
    - BBC: Nine Mile Canyon & Tavaputs Plateau
  - All this amounts to substantial NG in State
- DOGM: regulatory services
  - Activity spans life of the well
- Permitting
  - Permits on all types of land in state, is 30-45 day turn around
  - But 2/3 of land is Federal = 6 months permitting turn around to drill, because federal process is more burdened by bureaucratic requirements
  - If "wildcat" area goes to RDCC it is a slightly longer time frame
  - Working now on electronic processing to further enhance process
- Further direction

    - Education
    - Encourage development
    - Further improve and expedite permitting
    - Responsible development
- Yes; Active industry in Utah, economic development, we are enhancing our way to do this more environmentally sound
- Questions:
    - Ron A: Reserves account of discovery in Richfield varied significantly. Why?
        - Varied based on looking at reserves or anticipated potential
        - Continued drilling going on; so expect someone else will find more
    - Cheryl M: When drilling permit issued, how soon must they commence drilling?
        - Usually expect 1 year, sometimes extended for a year under special circumstances, max is 2 years
    - What about road dust?
        - Working to encourage industry to address issue (also roads not always singly owned)

Cheryl Heying: Gas Partnership Action Plan

- Whole new influx of oil and gas development in the State
- As looked at the number of applications for drilling recognized need to proactively work with developers to address air quality issues
- Trying to match up development with rural air quality standards
- Met with industry & trade organizations to look at best way to manage air shed and help all understand permitting requirements
- What are we trying to protect? A foremost issue has be visibility (important quality of life issue)
    - Trying to regulate sources of visibility impairment
    - Human healthy, address ozone issues
- Working across agencies to promote certainty and consistency
- Looking at best management practices
- Questions:
    - Inventory process on CO2 emissions, will it include Oil & Gas?
        - Yes, and work to make best projection